

Horticulture Tips

July 2008

Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Oklahoma State University

GARDEN TIPS FOR JULY!

David Hillock

Vegetable Garden

- Make fall vegetable garden plantings in late July. Fact Sheet [HLA-6009](#) gives planting recommendations.

Lawn

- Brown patch disease of cool-season grasses can be a problem. ([HLA-6420](#))
- Meet water requirements of turfgrasses. ([HLA-6420](#))
- Fertilization of warm-season grasses can continue if water is present for growth. ([HLA-6420](#))
- Vegetative establishment of warm-season grasses should be completed by the end of July to ensure the least risk of winter kill. ([HLA-6419](#))
- Mowing heights for cool-season turfgrasses should be at 3" during hot, dry summer months. Gradually raise mowing height of bermudagrass lawns from 1 ½ to 2".
- Sharpen or replace mower blades as needed. Shredded leaf blades are an invitation to disease and allow more stress on the grass.

Tree and Shrub

- Control bermudagrass around trees and shrubs with Poast, Fusilade or Glyphosate herbicides. Follow directions closely to avoid harming desirable plants.

Fruits

- Continue insect combat and control in the orchard, garden and landscape. ([EPP-7306](#), [EPP-7313](#), [EPP-7319](#))
- Check pesticide labels for "stop" spraying recommendations prior to harvest.
- Harvest fruit from the orchard early in the morning and refrigerate as soon as possible.

Flowers

- Divide and replant crowded Hybrid Iris (Bearded Iris) after flowering until August.

General Landscape

- Water plants deeply and early in the morning. Most plants need approximately 1 to 2 ½ inches of water per week.
- Providing birdbaths, shelter and food will help turn your landscape into a backyard wildlife habitat.
- Insect identification is important so you don't get rid of the "Good Guys." ([EPP-7307](#))
- The hotter and drier it gets, the larger the spider mite populations!
- Expect some leaf fall, a normal reaction to drought. Water young plantings well.
- Have you visited the *Oklahoma Gardening Studio Gardens* in Stillwater for a group tour?

It's Grape Petiole Sampling Time

Eric T. Stafne

Soil samples do not adequately reflect the nutritional needs of perennial woody species, but tissue sampling can accurately monitor a grapevine's nutritional needs. Petiole samples should be collected at veraison which is in early to mid-July in Oklahoma.

Samples should be from uniform areas of the vineyard, but not from more than 10 acres. If a vineyard is not uniform, then separate samples for analysis (this includes changes in soil types, nematodes, different cultivars and rootstocks). One hundred petioles should be collected from a select group of vines or by using a consistent pattern across the uniform vineyard (i.e. every 10th vine in every 5th row, etc.). Sampling needs to be representative of the vineyard area. Sampling from the same vines each year will allow for discrimination of seasonal trends in vine nutritional status, which otherwise could be difficult if different vines are used each year.

The actual petiole samples should come from the youngest full mature leaf near the shoot apex (usually about 6 or 7 leaves back from the end) and opposite a cluster. Once collected, remove leaf blade and discard and place the petioles in a clean, labeled paper bag (lunch sack). Be sure to record information regarding the sample for identification, and later interpretation. Petiole samples should then be sent to the lab immediately, as delays will reduce accuracy. Samples should be kept in a dry, well-ventilated location until delivery to the lab.

Critical values for nutritional status of grapevines were primarily developed from 'Concord' – other cultivars may have other nutritional requirements. Application of certain fungicides and nutrient sprays can influence petiole sample results, so collection after rainfall or washing with distilled water may help, but knowledge of prior spray applications is necessary.

Well-planned and consistent petiole sampling will yield important vine nutrition information for the grower. This information along with proper timing of application can maximize fertilizer use efficiency, vine performance, protect the environment and maximize profit.

Below are listed a few labs that do grape tissue sampling.

A&L Analytical Laboratories, Inc.
800-264-4522; www.allabs.com

Ward Laboratories, Inc.
800-887-7645; www.wardlab.com

Western Agricultural Laboratories, Inc.
806-794-4888

Diagnosing Problems in the Landscape and Garden

David Hillock

Throughout the growing season a number of problems can arise in the landscape and garden. The County Extension Offices throughout the state as well as your local garden professionals are a good source in helping diagnose the problem. The County Educators and garden professionals are trained to look for and ask certain questions to help narrow in on the problem. Knowing some of the things they will be looking for will help you possibly diagnose the problem yourself or be better prepared with the information they will need to solve the dilemma. Here are some of those areas to consider.

- 1) Keep an open mind. Do not jump to conclusions.
- 2) Avoid assigning “Guilt by Association.” The insect, animal or disease observed may not be the actual cause of the problem or symptom.
- 3) Take a thorough history: weather extremes, site alterations, fertilizer and pesticide use, cultural practices, etc. Once mature trees (especially pines and oaks) begin to decline, there is often no way to reverse the process.
- 4) The symptom may indicate a problem in a different part of the plant. Example, brown leaves may be the result of a root problem or trunk or stem damage.
- 5) Know what the healthy plant should look like.
- 6) At least one half of all observed landscape problems are not caused by insects or diseases. Try to eliminate other causes first.
- 7) A particular problem may be caused by several factors.
- 8) There is a great variation in the expected life-span of landscape plants. All plants go through periods of growth, maturity and decline. Plants grown in urban locations generally have shorter lives.
- 9) Many pests and diseases are plant specific. Symptoms affecting more than one plant species may indicate cultural and environmental problems.

There are many other areas to consider and questions that may need to be asked. Be prepared to answer questions to the best of your ability. Remember, we can never ask enough questions. The more thorough you are the better the diagnosis will be!

Plant ID and Disease Diagnosis

At this time of year numerous plant samples for either species identification or disease diagnosis are sent in. In order to receive a quick response and properly identified plant or diagnosed problem, the following guidelines should be followed when preparing and shipping a sample as well as information that should be provided with each sample.

Collection and Mailing of Plant Specimen for Species Identification

In the case of plant identification, send as much of the plant as possible, not just one or two leaves. A small branch, stem or cutting that includes healthy foliage, buds, and flowers or fruit if they are present makes it easier to identify. The leaves, flowers, fruit, buds and stems usually have specific characteristics that help separate one species from another. The cut end of the specimen should be wrapped in a moist paper towel and placed into a loosely closed plastic bag.

Do NOT enclose the whole plant by the plastic bag. Place into a strong cardboard box with packing material around the specimen so that it is not crushed. Additional information that should be included with the sample is:

- Growth habit – tree, shrub, vine, ground cover, herbaceous perennial or annual; is the plant “wild” or cultivated?
- Flower (if not present at the time) – type, color, size, and time of year it appears.
- Fruit – type, color, size and time of year it appears.
- Of course a good picture of the plant can be very beneficial as well.

Information for Disease Diagnosis

Disease diagnosis will require a more in depth investigation. Please do not be offended by this so called investigation. It is very important that a detailed case history on each specimen be provided so that the problem can be solved and corrected if possible. A large percent of plant problems are abiotic or nonparasitic causal agents such as high and low temperatures; unfavorable soil moisture; lighting, wind and hail; mineral excesses or deficiencies; pesticide misuse; and air pollution. Sometimes plant responses to these conditions are not immediate and may show up many weeks, months or even a year or two later. Therefore, be prepared to include or answer the following:

- Date specimen was collected
- Name of plant or variety
- When and what symptoms were observed
- Chemicals used on or near plants
- Cultural practices followed
- And plants that were growing in the area in preceding years.

Collecting Plant Samples

- Collect several plant specimens showing various stages of disease development. Select plants that are still alive.
- Collect the entire plant whenever possible. Plants should be dug (not pulled) to keep the roots intact.
- For tree samples, the branches sent in should be at least 8 inches long.



Plant sample packaging

First, wrap the roots of the plant in a plastic bag so that they do not dry out. If the plant is already potted then it can be left in the pot for shipping.



Second, wrap the entire sample in plant bags to keep it from drying out (exceptions: wrap fleshy fruits beginning to decay and mushrooms in newspaper).



Third, place the plant in a sturdy box or mailing tube. Do not add water or wet paper towels. Send a detailed history explaining the disease symptoms, when disease began, name, address, and phone number. Take it to your County Cooperative Extension Office to have it shipped.



Planting Fall Vegetables

Kimberly Rebek

With temperatures soaring and the sun glaring, it is hard to think ahead to fall. But mid-July is the right time to start planting several vegetables for a fall harvest. Following is a list of fall crops and the appropriate planting times.

<u>Crop</u>	<u>Planting Time</u>	<u>Days to Harvest</u>
Bean, bush	Aug 10-20	50-60
Bean, pole	July 15-30	60-70
Beet	Aug 1-15	60-70
Broccoli	July 15-Aug 15	70-80
Cabbage	Aug 1-25	75-90
Carrots	July 15-Aug 15	70-80
Cauliflower	Aug 1-25	70-80
Chard	Aug 1-Sept 15	50-60
Cucumber	Aug 10-20	60-70
Eggplant	July 15	80-90
Leaf Lettuce	Aug 1-15	60-70
Peas, green	Aug 15-Sept 1	60-90
Pepper	July 15	90-110
Potato, Irish	Aug 1-15	90-110
Sweet Corn	July 15	80-100
Summer Squash	July 15-Sept 1	40-50
Tomatoes	July 1-15	70-90
Turnip	Aug 1-Sept 15	50-60
Winter Squash /Pumpkin	July 15-30	100-120

When selecting vegetables for fall plantings, choose varieties that have a short maturation period. Planting time will depend on the length of time needed to produce a crop. Tender vegetables must be started early enough to ensure harvest before frost kills plants. Other crops, mainly root crops, are hardy enough to be stored in place in the garden well into winter.

Getting your fall vegetable garden started can be tricky when the weather is hot and dry. In the heat of the summer sun, the surface of the soil can reach temperatures of 140°F! These temperatures can quickly kill plant seeds, especially small seeds near the soil surface. Water can also be a limiting factor in late summer, when intense sun quickly dries soils. The following techniques can be used to reduce soil temperature and manage soil moisture.

Plant in Furrows. One way to reduce soil temperatures around the seed is to plant in rather deep furrows. Before digging furrows, loosen the soil and incorporate a large amount of organic matter, which will help increase the water-holding capacity of the soil. Place the seeds in the bottom of the furrow and cover with soil, but do not fill the furrow entirely. The surface of the seed bed should be set considerably lower than the surrounding soil. The seeds will be shaded down inside the furrow.

The furrow also helps conserve water and direct water where it is needed, to the germinating seeds. When you irrigate your planting, water only in the furrow. Water will naturally fill the low spot you have created, fostering seed germination. As the seedling grows, add more soil to the furrow bringing it level with surrounding soil. Place mulch around the plants to help retain soil moisture while also combating weeds. Weeds tend to be a greater problem in fall gardens than in spring. The constant supply of water favors weed growth as much as it does vegetables. Be sure to remove weeds that establish within the row.

Provide Shade. Another way to help seeds develop is to provide extra shade. Shading will both reduce soil temperature and limit evaporation of soil moisture. You can provide shade using shade clothes, strips of screen, or boards to cover the row. Old, wire screens work very well for shading rows. They are pliable enough to bend into tents over the row, yet sturdy enough to maintain the tent shape.

Be creative and use materials you have on hand. The goal is to cool the soil, creating an environment conducive to seed germination. Make sure to secure screens and other shade structures to keep them from blowing away with the wind. Remove any materials used for shading once seedlings emerge.

Irrigation. Proper watering is essential to establishing any crop as seeds require constant moisture to germinate. This time of year, you will most likely need to provide supplemental irrigation, as rainfall is typically sparse. Using the furrow method will help you accomplish this task while minimizing water use. Drip irrigation is also very efficient.

Another helpful practice is to soak seeds overnight before planting. The seeds will imbibe or absorb water, hastening germination. This practice is not recommended for beans (*Phaseolus* spp.), because the seeds may crack and germinate poorly with too much moisture.

Oklahoma's long growing season allows us to grow vegetables well into fall. The warm days and cool nights of autumn are ideal for producing hardy vegetables and leafy greens. Proper planning and preparation will ensure you have a desirable selection of plants available and the tools you need to establish plants during the summer heat. A little extra effort during establishment will be greatly rewarded with fresh produce in autumn.

Oklahoma Cooperative Extension Fact Sheet [HLA-6009](#) has more information on planting the fall vegetable garden.

Wes Watkins Agricultural Research and Extension Center Organic Workshop and Field Day – July 10, 2008

Jim Shrefler

An educational session on Organic farming will be held July 10 in the afternoon and evening. The event is open to anyone interested in learning about sustainable and organic gardening and farming practices. The event will provide attendees the opportunity to learn about experience gained over the past 5 years with organic vegetable production at the Center. Certified Organic

land at the Center has been used for vegetable production since 2003. The activities will begin with an afternoon field workshop in which soil management issues will be discussed. The workshop will address soil fertility management and practices and measures taken to prevent soil erosion.

The afternoon workshop will be followed by a meal and presentations on the production practices that have been used for organic vegetable production at Lane. We will view planted crops and discuss current and past experience with the organic certification process, soil fertility management, cultural practices, insect pests, diseases, weeds, and vertebrate pests.

For further details call 580-889-7343. The Lane Agriculture Center is located on State Highway 3, 10 miles east of Atoka, Oklahoma.

Upcoming Horticulture Events

Turf and Landscape Field Day

September 17, 2008, OSU Botanical Garden, Stillwater, OK

Tree Care Conference

October 8, 2008, OSU Botanical Garden, Stillwater, OK

Greenhouse IPM Conference

November 5, 2008, OSU, Stillwater, OK

Water Issues in Horticulture Conference

December 4, 2008, Stillwater, OK

For more information about upcoming events, please contact Stephanie Larimer at 405-744-5404 or stephanie.larimer@okstate.edu.